

What is claimed is:

1. A laminate comprising a peelable top layer, a substrate, and a bonding layer between said top layer and said substrate,

5 wherein at least one of said substrate and said top layer is porous and an adhesive for forming said bonding layer comprises the following components:

(A) an aqueous dispersion containing a polymer, which has properties that a dried film of said aqueous dispersion has a tensile strength of 1 to 28 MPa and a percentage elongation of 100 to 2000 %; and

10 (B) a water-based adhesive composition containing microspheres with thermal expansion capability, each of which is composed of a polymer shell encapsulating a gas.

15 2. The laminate as set forth in claim 1, wherein said top layer is a decorated metal plate, and said substrate is a porous board.

20 3. The laminate as set forth in claim 1, wherein said aqueous dispersion (A) contains at least one selected from the group consisting of vinyl acetate polymer or copolymer, urethane polymer, acrylic polymer or copolymer, silicone polymer, chloroprene elastomer, and styrene-butadiene elastomer.

25 4. The laminate as set forth in claim 1, wherein said aqueous dispersion (A)

contains an ethylene-vinyl acetate copolymer.

5. The laminate as set forth in claim 1, wherein said aqueous dispersion (A)

5 contains an ethylene-vinyl acetate copolymer and an anionic polyurethane dispersion.

6. The laminate as set forth in claim 5, wherein the anionic polyurethane

10 dispersion is an anionic polyurethane dispersion with sulfonate groups.

7. The laminate as set forth in claim 1, wherein an amount of said microspheres

15 is in a range of 2 to 100 parts by weight with respect to 100 parts by solid content of polymer in said aqueous dispersion (A).

8. The laminate as set forth in claim 1, wherein said microspheres have properties of an expanding magnification of 20 times to 100 times, and an

20 expanding start temperature of 90 °C to 150 °C.

9. The laminate as set forth in claim 1, wherein said top layer is a plastic sheet and said substrate is a porous board.

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10. The laminate as set forth in claim 4, wherein a toluene insoluble fraction of a dried film of the ethylene-vinyl acetate copolymer is 70 wt% or more.

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11. The laminate as set forth in claim 5, wherein an amount of said microspheres is in a range of 2 to 100 parts by weight with respect to 100 parts by weight of solids content of total polymer in the ethylene-vinyl acetate copolymer and the anionic polyurethane dispersion.

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12. A method of peeling off said top layer from said laminate as set forth in claim 1 comprising the step of irradiating said laminate with a light, while heating said laminate.

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13. The method as set forth in claim 12, wherein said light is far infrared having a wavelength of 5 to 30 μm .

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14. The method as set forth in claim 13, wherein said laminate is irradiated for 2 minutes or more with the far infrared, while being heated at a temperature of 150 °C or more.

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15. The method as set forth in claim 12, wherein said light is ultraviolet.